STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Maine Air National Guard	)	**Departmental**
Penobscot County	)	**Finding of Fact and Order**
Bangor, Maine	)	**Air Emission License**
A-627-71-G-R/A (SM)	)	

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

The Maine Air National Guard (Air Guard) of Bangor, Maine has applied for an air emission license renewal for their fuel burning equipment and miscellaneous process equipment. The Air Guard operates in several buildings that coexist with various private and commercial operations. This application renewal will include several new boilers and generators that were previously not listed in the air license and will also update the air license with several boilers and generators that have been removed from the base.

B. Emission Equipment

The Air Guard is licensed to operate the following #2 oil-fired boilers:

Emission Unit	Max Design Capacity (MMBtu/hr)	Max Firing Rate (gal/hr)	Fuel Type (Actual % S)	Date of manufacture	Stack #	License Status
AEI-L-416-1	1.81	13.2	#2 oil/<.0015%	1989	416-A	Renewal
AEI-L-417-1	1.81	13.20	#2 oil/<.0015%	1985	417-A	Renewal
AEI-L-417-2	4.80	35.00	#2 oil/<.0015%	1986	417-B	Renewal
AEI-L-420-1	2.71	19.80	#2 oil/<.0015%	1986	420-A	Renewal
AEI-L-420-2 *	1.23	13.40	Propane/0%	2009	420-A	**New**
AEI-L-423-1	1.78	13.00	#2 oil/<.0015%	1998	423-A	Renewal
AEI-L-486-1	0.96	7.00	#2 oil/<.0015%	1999	486-B	Renewal
AEI-L-486-2 *	1.78	13.00	#2 oil/<.0015%	1999	446-B	**New**
AEI-L-488-1	1.36	14.90	Propane/0%	1994	488-A	Renewal
AEI-L-489-1 *	1.37	10.00	#2 oil/<.0015%	1986	489-A	**New**
AEI-L-491-1	1.37	10.00	#2 oil/<.0015%	1998	491-A	Renewal
AEI-L-496-1	4.80	35.00	#2 oil/<.0015%	1985	496-A	Renewal
AEI-L-496-2	4.80	35.00	#2 oil/<.0015%	1986	496-A	Renewal
AEI-L-496-3 *	1.10	8.00	#2 oil/<.0015%	1996	496-B	**New**
AEI-L-497-1	1.78	13.00	#2 oil/<.0015%	1997	497-A	Renewal
AEI-L-505-1	1.81	13.20	#2 oil/<.0015%	1985	505-A	Renewal

AEI-L-505-2	1.81	13.20	#2 oil/<.0015%	1985	505-B	Renewal
AEI-L-512-1	1.78	13.00	#2 oil/<.0015%	2001	512-A	Renewal
AEI-L-513-1	2.71	19.80	#2 oil/<.0015%	1986	513-A	Renewal
AEI-L-515-1 *	1.78	13.00	#2 oil/<.0015%	2008	515-A	**New**
AEI-L-515-2 *	1.78	13.00	#2 oil/<.0015%	2008	515-A	**New**
AEI-L-518-1	1.78	13.00	#2 oil/<.0015%	1999	518-A	Renewal
AEI-L-518-2	1.78	13.00	#2 oil/<.0015%	1999	518-A	Renewal
AEI-L-518-3 *	1.78	13.00	#2 oil/<.0015%	1997	518-A	**New**
AEI-L-532-1 *	2.71	19.80	#2 oil/<.0015%	2005	532-A	**New**
AEI-L-536-1	1.78	13.00	#2 oil/<.0015%	1997	536-A	Renewal
AEI-L-541-1	1.51	11.00	#2 oil/<.0015%	1991	541-A	Renewal
AEI-L-542-1	4.80	35.00	#2 oil/<.0015%	1994	542-A	Renewal
AEI-L-510-1	1.08	7.90	#2 oil/<.0015%	2004	510-A	Renewal
AEI-L-510-2	1.08	7.90	#2 oil/<.0015%	2004	510-A	Renewal

* Boilers not included in the previous air emissions license. Also, there are some boilers that were previously licensed, however, have been removed.

Generators operated at the Air Guard:

Emission Unit	Type of Equipment	Max Design Capacity (MMBtu/hr)	Max Firing Rate (gal/hr)	Fuel Type (Actual %S)	Date of manufacture
AEI-L-001	Generator	2.06	15.00	Diesel<.0015%	1991
AEI-L-002	Generator	1.19	8.70	Diesel<.0015%	1984
AEI-L-003	Fire Pump	3.43	25.00	Diesel<.0015%	1994
AEI-L-004	Fire Pump	3.43	25.00	Diesel<.0015%	1994
AEI-L-005	Fire Pump	3.43	25.00	Diesel<.0015%	1994
AEI-L-006	Generator	1.60	11.70	Diesel<.0015%	2003
AEI-L-007	Generator	2.14	15.60	Diesel<.0015%	1990
AEI-L-008	Generator	2.06	15.00	Diesel<.0015%	1988
AEI-L-009	Generator	1.19	8.70	Diesel<.0015%	1984
AEI-L-010	Generator	3.84	28.00	Diesel<.0015%	1984
AEI-L-011	Generator	3.84	28.00	Diesel<.0015%	1984
AEI-L-014	Generator	1.37	10.00	Diesel<.0015%	2001
AEI-L-015	Generator	1.60	11.70	Diesel<.0015%	1998
AEI-L-016	Generator	4.69	34.20	Diesel<.0015%	1998
AEI-L-017	Generator	2.06	15.00	Diesel<.0015%	1994
AEI-L-018	Generator	1.19	8.70	Diesel<.0015%	1984
AEI-L-019	Generator	0.70	5.10	Diesel<.0015%	2003
AEI-L-020	Generator	0.70	5.10	Diesel<.0015%	1994
AEI-L-021	Generator	0.70	5.10	Diesel<.0015%	2003
AEI-L-022	Generator	0.70	5.10	Diesel<.0015%	1988
AEI-L-023	Generator	0.70	5.10	Diesel<.0015%	2003
AEI-L-024	Generator	0.70	5.10	Diesel<.0015%	2003
AEI-L-025	Generator	0.70	5.10	Diesel<.0015%	1988
AEI-L-026	Generator	0.70	5.10	Diesel<.0015%	1985
AEI-L-027	Generator	0.81	5.90	Diesel<.0015%	1992
AEI-L-029	Generator	0.70	5.10	Diesel<.0015%	2002

AEI-L-030	Generator	0.70	5.10	Diesel<.0015%	1988
AEI-L-032 *	Generator	0.70	5.10	Diesel<.0015%	1988
AEI-L-033 *	Generator	0.70	5.10	Diesel<.0015%	1988
AEI-L-034 *	Generator	0.70	5.10	Diesel<.0015%	1998
AEI-L-036 *	Generator	0.70	5.10	Diesel<.0015%	2007
AEI-L-043 *	Generator	0.70	5.10	Diesel<.0015%	2007
AEI-L-056 *	Generator	0.70	5.10	Diesel<.0015%	1995

* Generators not previously included in the current air emissions license; some previously licensed generators have been removed.

Insignificant Emission Sources

The Air Guard operates several other boilers and propane heaters at the facility's buildings, each under 1.0 MMBtu/hr heat input capacity. In addition, the Air Guard also operates several other generators and internal combustion engines, each under 0.5 MMBtu/hr heat input capacity. Therefore, these boilers, heaters, and generators are mentioned only for inventory purposes and will not be included in short term emission rate calculations. These units are not listed in the license and will not be included in the fuel cap for the total facility's emissions calculations.

C. Application Classification

New emission units at a minor source are considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by the maximum future license allowed emissions, as follows:

Pollutant	Max. Future License (TPY)	Sig. Level
PM	4.4	100
PM_{10}	4.4	100
SO_2	16.2	100
NO_x	42.0	100
CO	7.6	100
VOC	30	50

Therefore, this air emission license is considered a renewal and an amendment for an existing source. The modification is determined to be a minor modification and has been processed as such. With the fuel limit on boilers and the operating hours restriction on the emergency back-up generators, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 CMR 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100 of the Air Regulations. BACT is a top down approach to selecting air emission controls considering economic, environmental and energy impacts. The Air Guard will be subject to BACT requirements for several boilers and emergency generators that were not previously listed in the air emissions license.

Descriptions of the applicable requirements are provided below under the appropriate headings.

B. BPT/BACT for Units and Operations

1. *#2 Oil-Fired Boilers*

The Air Guard operates several oil-fired boilers to provide building heat and hot water to the various buildings that make up the facility. Since the last renewal, the Air Guard has added new boilers to the base. The base has also removed its largest existing boiler AEI-L-515-1 (6.3 MMBtu/hr). The boilers' combined maximum design capacity is 63.4 MMBtu/hr; however, the average boiler's size is 2.1 MMBtu/hr, with each unit less than 5.0 MMBtu/hr.

The regulated pollutants emitted from the #2 oil-fired boilers are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM10), sulfur dioxide (SO2), nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC).

A summary of the BPT (for the existing units) and BACT (for the previously unlicensed units) analysis for each boiler at the Air Guard is the following:

1. The total fuel use for the facility shall not exceed 400,000 gal/year of #2 fuel oil, based on a 12 month rolling total.
2. The SO_2 emission limits are based on the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil.
3. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
4. NO_x emission limits are based on data from similar #2 oil fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from each boiler shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

Therefore, due to the individual size of the boilers, the combustion of ASTM D396 fuel oil, and a limit of 400,000 gallons per year, emissions from these boilers are considered relatively small and do not warrant additional pollution control equipment.

2. *Back-up Diesel Generators*

NSPS Generators

The Air Guard operates several back-up generators, however, two diesel generators (AEI-L-036 and AEI-L-043) were manufactured and installed in 2007. These units were previously not licensed and are subject to new federal and state requirements for diesel generators. Generators AEI-L-036 and AEI-L-043 were manufactured after April 1, 2006. Therefore, these back-up generators are subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 06-096 CMR 148, Emissions from Smaller-Scale Electric Generating Resources.

A summary of the BACT analysis for new generators is the following:

1. Generators AEI-L-036 and AEI-L-043 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.
2. Beginning October 1, 2010, Generators AEI-L-036 and AEI-L-043 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
3. These back-up generators shall each be limited to 100 hr/yr of operation for maintenance checks and readiness testing. Each generator shall be limited to 500 hours per year of total operation. Both of these limits are based on a

12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.

4. Generators AEI-L-036 and AEI-L-043 shall be equipped with non-resettable hour meters.
5. 06-096 CMR 103 regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
6. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
7. The Air Guard shall operate and maintain Generators AEI-L-036 and AEI-L-043 in accordance with the manufacturer's written instructions. The Air Guard shall not change settings that are not approved in writing by the manufacturer.
8. Visible emissions from each back-up generator shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period.

Existing Back-up Generators

The Air Guard operates several existing back-up generators to supply electricity to their buildings and boiler feed water pumps in the event normal electric service is interrupted. Back-up generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available.

The existing diesel generators each have heat input rates less than 5.0 MMBtu/hour. There were several emergency diesel generators in various buildings that were not included in the previous air emissions license, however, this air emissions license will include all units and some "storage" units that are currently not in use but may be used in the future. Most of these back-up units were manufactured and installed prior to April 2006 and therefore not subject to 40 CFR Part 60, Subpart IIII.

Both BPT, for the existing generators, and BACT, for the previously unlicensed generators, are achieved by the following:

1. The back-up generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. The back-up generators shall each be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT/BACT analysis for SO_2 determined a more stringent limit of 0.05% was appropriate and shall be used.
4. 06-096 CMR 103 regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.

6. Visible emissions from each of the back-up generators shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

3. *Jet Engine Test Cell*

The Jet Engine Test Cell no longer operates at the base and therefore will be removed from the air emissions license.

4. *Paint Booth*

There is one paint booth on base currently in service located in Building 496. To provide some indication of the relative magnitude of non combustion related VOC emissions, a detailed analysis was completed on the Building 496 Paint Booth. MSDS sheets were collected for each paint and based upon the percent volatiles and the estimated amount of gallons used, the total pounds of VOC emissions per year was calculated. The results showed an average yearly total of 3,400 pounds of VOC emissions from Building 496 Paint Booth. BPT for the paint spray booth will include continued maintenance of the filter elements to minimize PM emissions and maintaining monthly records of paint purchase and use.

5. *Deicing and anti-icing operations*

The base also uses propylene glycol based anti-icing deicer fluid (ADF). The base uses about 25,000 gallons to 35,000 gallons per winter. During contingency operations, the base may use substantially more ADF. The current license does not account for the VOC emission contribution from ADF. Emissions factors are based on calculations by US EPA publication "Preliminary Data Summary of Airport Deicing Operations (Revised)" dated August 2000. The EPA emission factor for VOC emissions from deicing operations was determined to be 16.1 lb VOC/10,000 gallons of fluid dispensed. The VOC emissions from this process will be included in the facility's overall VOC emissions limit of 30 tons per year.

6. *AST, UST, and Solvent Tanks*

The primary mission for the Air Guard is to stage aerial refueling missions. As such, substantial quantities of fuel flow from tank trucks to storage tanks and back out to aircraft either by a hydrant network or by tanker truck. These on-site transfers are stationary sources for volatile organic compounds and are included in the emissions caps established in the license. The facility has removed all underground storage tanks since the issuance of the original license. There are now only two listed storage tanks with capacities exceeding 39,000 gallons. The base delivers over 12,000,000

gallons per year of JP-8 formula fuel on average and during contingencies can deliver much greater quantities.

The Air Guard, in an effort to limit VOC emissions, will maintain the submerged fill pipe for refilling both fuel storage tanks and minimize fugitive VOC emissions from accidental spills by maintaining the installed tanker truck spill containment system. These conditions, including the overall 30 tons per year VOC limit for the entire facility's stationary sources, meet the requirements of BPT for the non-combustion VOC sources. Furthermore, the Air Guard shall also meet the requirements of 06-096 CMR 118 of the Maine Air Bureau regulations in order to minimize emissions during transfer of gasoline from tank trucks to storage tanks.

7. *Facility Emissions and Fuel Use Caps*

Allowable annual facility emissions are calculated from the combustion of 400,000 gallons of ASTM D396 fuel oil #2 fuel oil based on a 12 month rolling total, operation of the back-up diesel generators each limited to 500 hours per year, and the limit on non-combustion VOC emitting equipment, including those listed in Section II.B.

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Boilers	3.5	3.5	14.2	11.2	1.0	0.5
Back-up Generators	0.9	0.9	2.0	30.8	6.6	2.5
Process emissions	--	--	--	--	--	27
Total TPY	**4.4**	**4.4**	**16.2**	**42.0**	**7.6**	**30**

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	Tons/Year
PM	25
PM_{10}	25
SO_2	50
NO_x	100
CO	250

Based on the total facility licensed emissions, Air Guard is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

-will receive Best Practical Treatment,
-will not violate applicable emission standards, and
-will not violate applicable ambient air quality standards, or increment standards either alone or in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-627-71-G-R/A (SM), subject to the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boilers**

A. Total fuel use for the boilers shall not exceed 400,000 gal/yr of #2 fuel oil. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered (ASTM D396 compliant). Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]

B. The Air Guard shall limit emissions from the boilers (greater than 1.0 MMBtu/hr) to the following: [06-096 CMR 103(2)(B)(1)(a) & 115, BPT]

Pollutant	lb/MMBtu	lb/hour
PM	0.12	0.6
PM10	--	0.6
SO2	--	2.4
NOx	--	1.9
CO	--	0.2
VOC	--	0.1

Note: The calculated maximum lb/hour emission limit is based on the largest boiler, operating at 4.8 MMBtu/hr

C. Visible emissions from any boiler shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(17) **NSPS Emergency Generators**

A. Generators AEI-L-036 and AEI-L-043 shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm. [40 CFR 60.4207(a)]

B. Beginning October 1, 2010, Generators AEI-L-036 and AEI-L-043 shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [40 CFR 60.4207(b)]

C. Compliance with the sulfur content limits shall be based on fuel records from the supplier showing the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]

D. Generators AEI-L-036 and AEI-L-043 shall be limited to 100 hr/yr of operation for maintenance checks and readiness testing. The generators shall be limited to 500 hours per year of total operation. Both of these limits are based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]

E. Generators AEI-L-036 and AEI-L-043 shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]

F. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator AEI-L-036	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Generator AEI-L-043	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

G. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-036	0.1	0.1	0.1	3.1	0.7	0.2
Generator AEI-L-043	0.1	0.1	0.1	3.1	0.7	0.2

H. Generators AEI-L-036 and AEI-L-043 are subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]

I. The Air Guard shall operate and maintain Generators AEI-L-036 and AEI-L-043 in accordance with the manufacturer's written instructions. The facility shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]

J. Visible emissions from the NSPS generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(18) **Back-up Generators**

A. The Air Guard shall limit each back-up generator to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on the Back-up Generator. [06-096 CMR 115, BPT]
B. The back-up generators shall only be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. The back-up generators shall not be used for prime power when reliable offsite power is available. A log shall be maintained documenting the date, time, and reason for operation. [06-096 CMR 115, BPT]
C. The back-up generators shall fire diesel fuel with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel records from the supplier showing the quantity of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]
D. Emissions from each back-up generator shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

E. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator AEI-L-016	0.6	0.6	0.2	20.7	4.5	1.6

Note: The calculated maximum lb/hour emission limit is based on the largest back-up diesel generator (AEI-L-016), operating at 4.7 MMBtu/hr

F. Visible emissions from each back-up generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(19) The Air Guard shall use JP-8 fuel or similar civilian grade of aviation fuel in their operations. The Air Guard shall maintain the submerged fill pipe for refilling

storage tanks and minimize fugitive VOC emissions from accidental spills by maintaining the installed tanker truck spill containment system. The Air Guard shall limit total VOC emissions from the facility to 30 tons per year, based on a 12-month rolling total. The Air Guard shall maintain accurate records of all fuel fillings to determine VOC emissions associated from the several storage tanks. [06-096 CMR 115, BPT]

(20) The Air Guard shall meet the requirements imposed in 06-096 CMR 118 of the Maine Air Bureau regulations, in order to minimize emissions during transfer of gasoline from tank trucks to stationary gasoline storage tanks. [06-096 CMR 118]

(21) The Guard shall maintain the filter elements on the spray paint booths to minimize PM emissions. The number of gallons of paints, and the VOC content (lb/gallon) of these paints, that are used in the spray booths and other non-combustion VOC sources shall be documented to determine the amount of VOC emissions associated with that process. Monthly paint purchases and use records shall be maintained. [06-096 CMR 115, BPT]

(22) The Air Guard shall document the quantity of deicing and anti-icing operations on a monthly basis. The emission factor of 16.1 lb VOC/10,000 gallons of fluid dispensed shall be used to determine VOC emissions from these operations. The Air Guard shall maintain facility-wide VOC emissions to less than 30 tons per year. [06-096 CMR 115, BPT]

(23) **Parts Washer**

Parts washers at the Air Guard are subject to Solvent Cleaners, 06-096 CMR 130 (last amended June 28, 2004).

A. The Air Guard shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]

B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
   1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under Chapter 130.
   1. The Air Guard shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      (i) Waste solvent shall be collected and stored in closed containers.
      (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15

seconds or until dripping ceases, whichever is longer.

(iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.

(iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.

(v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.

(vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.

(vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.

(viii) Work area fans shall not blow across the opening of the degreaser unit.

(ix) The solvent level shall not exceed the fill line.

2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(24) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(25) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(26) **Annual Emission Statement**

In accordance with Emission Statements, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department; or

2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

(27) Air Guard shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 14th DAY OF May , 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 4, 2009
Date of application acceptance: May 22, 2009

Date filed with the Board of Environmental Protection:

This Order prepared by Edwin Cousins, Bureau of Air Quality